

OK May 2000  
M. Lubet  
STC Search

Access DB# 27457

# SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Markus Lubet Examiner #: 72496 Date: 4-10-2000  
Art Unit: 1644 Phone Number 305-7141 Serial Number: 091258942  
Mail Box and Bldg/Room Location: Miller Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need. 258947  
\*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Mimetic peptides anti-phosphatase 6/14/00  
Inventors (please provide full names): Miller et al.

Earliest Priority Filing Date: \_\_\_\_\_

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Se Arch SEQ ID NO. 174  
38

Se Arch with length limitation  
+ with length limitation < 20 AA

SEQ ID NO: 174 is a motif peptide  
(Top Anal. Van Xan Ala Tsa)

Point of Contact:  
Evelyn Shears  
Technical Info. Specialist  
CMI 12C14 Tel: 308-4994

STAFF USE ONLY		Type of Search	Vendors and cost where applicable
Searcher: <u>Beverly Q. 4994</u>	NA Sequence (#) _____	STN <input checked="" type="checkbox"/>	
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____	
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Date Completed: <u>05-03-00</u>	Litigation _____	Lexis/Nexis _____	
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Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____	
Online Time: <u>22</u>	Other _____	Other (specify) <u>CGN</u>	

09/258947

FILE 'REGISTRY' ENTERED AT 11:07:21 ON 03 MAY 2000

L1 119 S WNWRYREYV | WR..EY/SQSP

FILE 'CAPLUS' ENTERED AT 11:08:02 ON 03 MAY 2000

L2 110 S L1

L3 4 S L2 AND ?MIMOTOP?

L3 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1999:147365 CAPLUS

DOCUMENT NUMBER: 130:205126

TITLE: **Mimotopes** and anti-**mimotopes**  
of human platelet glycoprotein Ib/IX

INVENTOR(S): Miller, Jonathan L.; Lyle, Vicki A.

PATENT ASSIGNEE(S): The Research Foundation of State University of  
New York, USASOURCE: U.S., 52 pp., Cont.-in-part of U.S. Ser. No.  
406,330.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5877155	A	19990302	US 1995-556597	19951113
US 5817748	A	19981006	US 1995-406330	19950317
WO 9718236	A1	19970522	WO 1996-US17882	19961108
W: CA, CN, JP				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 876396	A1	19981111	EP 1996-942734	19961108
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
CN 1202175	A	19981216	CN 1996-198270	19961108
PRIORITY APPLN. INFO.:				
				US 1995-406330 19950317
				US 1995-556597 19951113
				WO 1996-US17882 19961108

AB The invention is directed to an isolated peptide that functionally mimics a binding site for a monoclonal antibody, the monoclonal antibody recognizing an epitope within the human platelet glycoprotein Ib/IX complex. This peptide is called a **mimotope**. The invention also provides an isolated mol. capable of binding to the peptide, or the **mimotope**, which mol. can be an antibody, a second peptide, a carbohydrate, a DNA mol., an RNA mol., or other naturally or chem. synthesized mols. This isolated mol. is called an anti-**mimotope**.

**Mimotopes** mimicking the binding site for monoclonal antibody C-34 and SZ-2, as well as anti-**mimotopes** to the C-34

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**mimotopes**, are specifically provided. The anti-**mimotopes** could serve as antithrombotic drugs.

IT 220972-76-9

RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)

(**mimotopes** and anti-**mimotopes** of human platelet glycoprotein Ib/IX)

IT 176546-79-5

RL: BAC (Biological activity or effector, except adverse); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(**mimotopes** and anti-**mimotopes** of human platelet glycoprotein Ib/IX)

IT 176546-78-4 190831-44-8 190831-46-0

190831-48-2 190831-51-7 190831-56-2

RL: PRP (Properties)

(**mimotopes** and anti-**mimotopes** of human platelet glycoprotein Ib/IX)

L3 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1998:650060 CAPLUS

DOCUMENT NUMBER: 129:274689

TITLE: **Mimotopes** and anti-**mimotopes** of human platelet glycoprotein Ib/IX

INVENTOR(S): Miller, Jonathan L.; Lyle, Vicki A.

PATENT ASSIGNEE(S): The Research Foundation of State University of New York, USA

SOURCE: U.S., 26 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5817748	A	19981006	US 1995-406330	19950317
US 5877155	A	19990302	US 1995-556597	19951113
PRIORITY APPLN. INFO.:			US 1995-406330	19950317

AB The present invention is directed to an isolated peptide that functionally mimics a binding site for a monoclonal antibody, the monoclonal antibody recognizing an epitope within the human glycoprotein Ib/IX complex. This peptide is called a **mimotope**. The invention also provides an isolated mol. capable of binding to the peptide, or the **mimotope**, which mol. can be an antibody, a second peptide, a carbohydrate, a DNA mol., an RNA mol., or other naturally or chem. synthesized mols. This isolated mol. is called an anti-**mimotope**.

**Mimotopes** mimicking the binding site for monoclonal antibody

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C-34 are specifically provided.

IT 176546-78-4 176546-79-5 190831-44-8  
190831-46-0 190831-48-2 190831-51-7  
190831-56-2

RL: BPR (Biological process); PRP (Properties); BIOL (Biological study); PROC (Process)

(**mimotopes** and anti-**mimotopes** of human platelet glycoprotein Ib/IX)

L3 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1997:416926 CAPLUS

DOCUMENT NUMBER: 127:32826

TITLE: **Mimotopes** and anti-**mimotopes**  
of human platelet glycoprotein Ib/IX

INVENTOR(S): Miller, Jonathan L.; Lyle, Vicki A.

PATENT ASSIGNEE(S): Research Foundation of State University of New York, USA

SOURCE: PCT Int. Appl., 116 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9718236	A1	19970522	WO 1996-US17882	19961108
W: CA, CN, JP				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5877155	A	19990302	US 1995-556597	19951113
EP 876396	A1	19981111	EP 1996-942734	19961108
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

PRIORITY APPLN. INFO.:  
US 1995-556597 19951113  
US 1995-406330 19950317  
WO 1996-US17882 19961108

AB The present invention is directed to an isolated peptide that functionally mimics a binding site for a monoclonal antibody, the monoclonal antibody recognizing an epitope within the human platelet glycoprotein Ib/IX complex. This peptide is called a **mimotope**. The invention also provides an isolated mol. capable of binding to the peptide, or the **mimotope**, which mol. can be an antibody, a second peptide, a carbohydrate, a DNA mol., an RNA mol., or other naturally or chem. synthesized mols. This isolated mol. is called an anti-**mimotope**.

**Mimotopes** mimicking the binding site for monoclonal antibody C-34 and SZ-2, as well as anti-**mimotopes** to the C-34

**mimotopes**, are specifically provided. These peptides are

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useful for modulating adhesion, aggregation, or agglutination of platelets.

IT 176546-78-4 176546-79-5 190831-44-8  
190831-46-0 190831-48-2 190831-51-7  
190831-56-2

RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(mimotopes and anti-mimotopes of human platelet glycoprotein Ib/IX)

L3 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1996:241172 CAPLUS

DOCUMENT NUMBER: 124:338977

TITLE: **Mimotope/anti-mimotope**  
probing of structural relationships in platelet glycoprotein Ib.alpha.

AUTHOR(S): Miller, Jonathan L.; Lyle, Vicki A.

CORPORATE SOURCE: Department Pathology, State University New York Health Science Center, Syracuse, NY, 13210, USA  
SOURCE: Proc. Natl. Acad. Sci. U. S. A. (1996), 93(8), 3565-9

CODEN: PNASA6; ISSN: 0027-8424

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A bacteriophage library displaying random decapeptides was used to characterize the binding preference of C-34, a monoclonal antibody originally raised against platelet-type von Willebrand disease platelets heterozygous for the mutation 230WKQ(G.fwdarw.V)233V234 in the .alpha. chain of glycoprotein Ib (GPIb.alpha.). Three rounds of biopanning C-34 against the library resulted in striking convergence upon the sequence WNWRYREYV. Since no portion of this sequence corresponds to a recognizable peptide sequence within human platelet GPIb.alpha., it may be considered a "mimotope" of the naturally occurring C-34 epitope, presumably bearing similarity to it in three-dimensional structure. Synthetic AWNWRYREYV peptide preincubated with C-34 fully neutralized the ability of C-34 to inhibit platelet aggregation, with an IC50 of .apprxeq.6 .mu.g/mL. When biotinylated AWNWRYREYV was subsequently biopanned against the original decapeptide library, the sole clone demonstrating inhibitory activity above background level in a functional platelet assay displayed the sequence RHVAWWRQGV, and chem. synthesized peptide fully inhibited ristocetin-induced aggregation, with an IC50 of 200-400 .mu.g/mL. Synthesized RHVAWWKQGV peptide exerted only slight inhibition, whereas RHVAWWKQVV peptide showed potent inhibitory activity. Moreover, whereas synthesized wild-type 228YVWKQGV237 GPIb.alpha. peptide was virtually without inhibitory activity, the 228YVWKQ(G.fwdarw.V)233VDVK237 peptide fully inhibited ristocetin-induced aggregation, with an IC50 of .apprxeq.400 .mu.g/mL. These studies raise the possibility of an

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intramol. assocn. of peptide regions within GPIb.alpha. that may play a role in the regulation of von Willebrand factor-dependent platelet aggregation.

IT 176546-78-4 176546-79-5

RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)

(mimotope/anti-mimotope probing of structural relationships in platelet glycoprotein Ib.alpha.)

E3 THROUGH E10 ASSIGNED

=> fil reg

FILE 'REGISTRY' ENTERED AT 11:09:35 ON 03 MAY 2000

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

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STRUCTURE FILE UPDATES: 2 MAY 2000 HIGHEST RN 263572-43-6

DICTIONARY FILE UPDATES: 2 MAY 2000 HIGHEST RN 263572-43-6

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 11, 2000

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Structure search limits have been increased. See HELP SLIMIT for details.

=> s e3-e10

1 176546-78-4/BI  
(176546-78-4/RN)

1 176546-79-5/BI  
(176546-79-5/RN)

1 190831-44-8/BI  
(190831-44-8/RN)

1 190831-46-0/BI  
(190831-46-0/RN)

1 190831-48-2/BI  
(190831-48-2/RN)

1 190831-51-7/BI  
(190831-51-7/RN)

1 190831-56-2/BI  
(190831-56-2/RN)

1 220972-76-9/BI  
(220972-76-9/RN)

L4 8 (176546-78-4/BI OR 176546-79-5/BI OR 190831-44-8/BI OR  
190831-46-0/BI OR 190831-48-2/BI OR 190831-51-7/BI OR  
Searcher : Shears 308-4994

09/258947

190831-56-2/BI OR 220972-76-9/BI)

=> s l4 and l1

L5 8 L4 AND L1

=> d 1-8 .bevreg1

L5 ANSWER 1 OF 8 REGISTRY COPYRIGHT 2000 ACS

RN 220972-76-9 REGISTRY

CN L-Valine, N-[6-[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]amino]-1-oxohexyl]-L-alanyl-L-tryptophyl-L-asparaginyL-L-tryptophyl-L-arginyl-L-tyrosyl-L-arginyl-L-.alpha.-glutamyl-L-tyrosyl- (9CI) (CA INDEX NAME)

SQL 11

SEQ 1 XAWNWRYREY V

=====

HITS AT: 3-11

REFERENCE 1: 130:205126

L5 ANSWER 2 OF 8 REGISTRY COPYRIGHT 2000 ACS

RN 190831-56-2 REGISTRY

CN L-Tyrosine, glycyl-L-tyrosyl-L-histidyl-L-tryptophyl-L-tryptophyl-L-arginyl-L-asparaginyL-L-tryptophyl-L-.alpha.-glutamyl- (9CI) (CA INDEX NAME)

SQL 10

SEQ 1 GYHWWRNWEY

=====

HITS AT: 5-10

REFERENCE 1: 130:205126

REFERENCE 2: 129:274689

REFERENCE 3: 127:32826

L5 ANSWER 3 OF 8 REGISTRY COPYRIGHT 2000 ACS

RN 190831-51-7 REGISTRY

CN L-Valine, L-tryptophyl-L-arginyl-L-glutaminyl-L-arginyl-L-.alpha.-glutamyl-L-tyrosyl-L-tryptophyl-L-.alpha.-aspartyl-L-prolyl- (9CI) (CA INDEX NAME)

SQL 10

SEQ 1 WRQREYWDPV

=====

HITS AT: 1-6

Searcher : Shears 308-4994

09/258947

REFERENCE 1: 130:205126

REFERENCE 2: 129:274689

REFERENCE 3: 127:32826

L5 ANSWER 4 OF 8 REGISTRY COPYRIGHT 2000 ACS

RN 190831-48-2 REGISTRY

CN L-Leucine, L-threonyl-L-glutaminyl-L-methionyl-L-tryptophyl-L-arginyl-L-alanyl-L-arginyl-L-.alpha.-glutamyl-L-tyrosyl- (9CI) (CA INDEX NAME)

SQL 10

SEQ 1 TQMWRAREYL

=====

HITS AT: 4-9

REFERENCE 1: 130:205126

REFERENCE 2: 129:274689

REFERENCE 3: 127:32826

L5 ANSWER 5 OF 8 REGISTRY COPYRIGHT 2000 ACS

RN 190831-46-0 REGISTRY

CN L-Valine, L-tyrosyl-L-leucylglycyl-L-tryptophyl-L-arginyl-L-tyrosyl-L-seryl-L-.alpha.-glutamyl-L-tyrosyl- (9CI) (CA INDEX NAME)

SQL 10

SEQ 1 YLGWRYSEYV

=====

HITS AT: 4-9

REFERENCE 1: 130:205126

REFERENCE 2: 129:274689

REFERENCE 3: 127:32826

L5 ANSWER 6 OF 8 REGISTRY COPYRIGHT 2000 ACS

RN 190831-44-8 REGISTRY

CN L-Valine, L-leucyl-L-seryl-L-threonyl-L-tryptophyl-L-arginyl-L-tyrosyl-L-phenylalanyl-L-.alpha.-glutamyl-L-tyrosyl- (9CI) (CA INDEX NAME)

SQL 10

SEQ 1 LSTWRYFEYV

=====

Searcher : Shears 308-4994



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HITS AT: 4-9

REFERENCE 1: 130:205126

REFERENCE 2: 129:274689

REFERENCE 3: 127:32826

L5 ANSWER 7 OF 8 REGISTRY COPYRIGHT 2000 ACS

RN 176546-79-5 REGISTRY

CN L-Valine, L-alanyl-L-tryptophyl-L-asparaginyl-L-tryptophyl-L-arginyl-L-tyrosyl-L-arginyl-L-.alpha.-glutamyl-L-tyrosyl- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN L-Valine, N-[N-[N-[N2-[N-[N2-[N-[N2-(N-L-alanyl-L-tryptophyl)-L-asparaginyl]-L-tryptophyl]-L-arginyl]-L-tyrosyl]-L-arginyl]-L-.alpha.-glutamyl]-L-tyrosyl]-

SQL 10

SEQ 1 AWWRYREYV

=====

HITS AT: 2-10

REFERENCE 1: 130:205126

REFERENCE 2: 129:274689

REFERENCE 3: 127:32826

REFERENCE 4: 124:338977

L5 ANSWER 8 OF 8 REGISTRY COPYRIGHT 2000 ACS

RN 176546-78-4 REGISTRY

CN L-Valine, L-tryptophyl-L-asparaginyl-L-tryptophyl-L-arginyl-L-tyrosyl-L-arginyl-L-.alpha.-glutamyl-L-tyrosyl- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN L-Valine, N-[N-[N-[N2-[N-[N2-[N-(N2-L-tryptophyl-L-asparaginyl)-L-tryptophyl]-L-arginyl]-L-tyrosyl]-L-arginyl]-L-.alpha.-glutamyl]-L-tyrosyl]-

SQL 9

SEQ 1 WNWRYREYV

=====

HITS AT: 1-9

REFERENCE 1: 130:205126

REFERENCE 2: 129:274689

Searcher : Shears 308-4994

09/258947

REFERENCE 3: 127:32826

REFERENCE 4: 124:338977

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'HOME' ENTERED AT 11:09:55 ON 03 MAY 2000

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